

Brasil 1976

4°

NOTE BOOK



75 SHEETS

4" x 6"

Brasil 1976
4º Safari - Bahia

May 20

2492

Atractantia radiata

Mun. de Marañ, (57 km
W of ~~Marañ~~^{Marañ}) 5.5 km S
of Marañ city

Alt. 20 m.

(± 15 km from the
sea shore)

Abundant on patches of
mats in region of
"campes". Soil very
rich in sand, light-
to white color.

Forest of *Piassara* very
abundant also

Most of the clumps
pathy old and ^{very} dry
In some places to flower.

cecy with ~~some~~ new
spk in anthers.

In one spot more
new culms found with
newly developing branches
and a few new culms
with bud complements.
Forms very dense, large
clumps, and + curved or
decumbent at base.

Culms cylindrical, naked
only few sheaths
near base and nodes - all
of them fall very soon.
Sheath near top pale
color, smooth, no blade
developed, only one
narrow, very small
seen. Fresh new shoot,
with sheath green

netted, in flower
violet, ~~the~~ with
some color - very
smooth, solid with
rip of space (in space)
in middle of fifth.
Lft. large, perfect
spike, long at
end of leaf - compact
and set aside in
place of some of
the branches. Top
or bases of spike are
about at base of
culms at basal nodes
of culms.

Stems yellow when
young, changing to
dark copper orange and
late brown or black.

leaves with wavy
denticulate lobes -
Prophylls bracts at
base of buds or leafy
bracts short, thin
for it elongate as
in other ~~straw~~ -
As a result, the
branch complement
at maturity showing
the upturned base
and base of 2e bracts
very clearly.

Branch complement:
one vertical terminal
and 2-4 ± 2e on the
sides (each one for
the next)

Node without line of
hairs or petioles - Node

Dupl: SI, Kew, ~~Leipzig~~ - Paris, Berlin,
Lanseria, Pretoria, Tokyo & N.Yak.

without ridge -

Canes ± 1.2 - 1.3 cm

lignate - thin

all over, but too

low internodes

low mid culms by

long - one was 197 cm

No photo -

panicles and internodes

F.A.A. : 3 n.s. : leaves &

culms, flowers & buds.

(very good ones.)

Several small young inflorescences with
multipanor sp. ? and others
with sp. and shoots coming
from the same head.

On road from Abaitato
to Merain at 33 km

3 from Abaitato

we saw A. cardinalis
pale asprage, teen
the main. Very pretty
hanging from very
high trees as a spray.

Before that we saw lots
of Retbergia very pretty
on road Abaitato - Me-
rain, ca. (16)? 17 km NE of
Abaitato. (The ground
is Merain and is the
same but we note
y case. In wetland
also the old camino
is x able. A few the
audan of the river

river, an old curve,
the bridge del camino
este Retbergia. It is an
old cacao plantation
under forest (clear) trees.
It is on a slope, going
down the road to a
creek, the river stream
between rocks, long like
hops, (!) Pharus seen with
Pharus and Retbergia
abundant. Hoop and
dribble from there.
Loud plantation
irregular and rooting
at nodes - but of
a color, most very
rough & spiny
broad, large the entire
leaves, nodes quite

marked -

looks like the other
fine from jaguar.

wood, next to the
vines but here ^{nodes} ~~are~~
are not dark, and
the buds. All light
green - (Hines on old wood
to Manoir)

(Monte Lo - Manoir : 62 km)

May 21

2443

~~Polycarpus~~ *Leiocarpus* (Spreng.) Kunth
^{det. M. T. Hickey}
Monte de Ilheus, 16 km S
W of Olivença on road
Olivença - Vila Brasil (ex
~~Antiga~~ Ruimbe)

Common at edge of
forest and side of
road. Tall for a
shrub, about 10 m, stout up to
1.50.

Big terminal panicles.
No photo.

FAA. 2 n.s. : one
infl. and 1 leaf.
spikelets underdeveloped.

Shimia macrophylla

2744

~~Shimia macrophylla~~

Near. to Ilheus, 16 km SW
of Olivença on road
Olivença - Vila Brasil
(old town "~~Atipica~~" Ruínas)

May 21, 1976

Alt. 40 m. s.m.

F.A.A.: 1 very wide; in /w/dec.; 1 m. wide

Leaves: 1 120 leaves; 1 50 culms

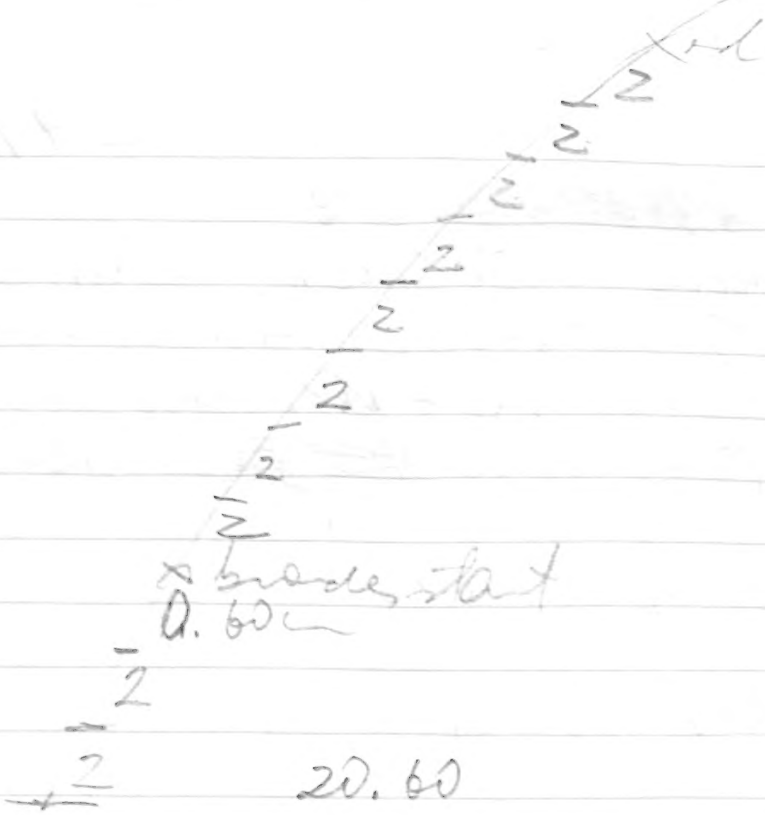
Flowers & roots (4)

Boys: 1 (120)

3:1: 1 (120)

Plots, B & W: well 64 (1 to 36)

Kodachrome: well 65 (1 to 38)



.83, .75, .67, .62
leaf internode

Len 0.5 - 0.7, 0.9
less than 1 cm.

Piassara

paroch and intern. collected
rhizome collected
living port collected

Very abundant all over
the port, growing in
Mato Atlantica, coastal
port of sandy soil
Dominant, or almost
is piassara palm and
the banana.

Beautiful, so so, dipping
over hanging everywhere
making dense clumps.
but only 20-25 ^{m. high} or more
only one name (not
the very tall) was
20.60 m.

culms very hard, solid.
with vascular structure

all over. Very hard (more than *At. betula*).

Surface very smooth, turning to yellow or orange, sometimes a little purple. Blooming profusely and in many places only new shoots (In the area the forest has been cut here and there a little not too long ago to make for clear the road. Probable not induce the flowering?).

Culm leaves: persistent in lower part of culm until winter, culm looks naked or almost

late section upper in the branches when branches start to develop. Culm sheath and blade smooth, not very strong. Blade erect large lanceolate-triangular, a little wider at base, ^{longer} longer than sheath or just about the same length. Very color - with a little purple with red veins. Blade thinner than sheath, ~~smaller~~ Node without ~~ridge~~ to the ridge.

Lower part of branch complacent extending down and forming the

lip per-entory - and
Yanga, repeated.

This strain are (as
one) in looks part
of culm. On both
sides 2 or 3 and
abundant itself
In mid culm giving
a strong, long, pointed
branch to culm.

bract and prophylla fall
when old strong
representation of strain
are -

leaves several on leaf
sheath. with long
erect, dense white
or all white - blades
large lanceolate, rather
thick.

In flower: prophylls
at least they keep
1) prophylls short and
undivided. Spt. for
leaves, heavy, thick
branches and are
scorpioid form, like
A. pallens. base of
flower thin, covered by bracts
Spt. very long.
are yellow. They grow?
or when young, they
are ^{prophylls} large and long
leaf, broad like with
rather wide space
thin, (no glaucous or
bracts at base of flower.
Many on culm, at
least 2 times seen
dark violet color.

Fl. produced at
end of branch compl-
ment and in very
plants, everywhere;
in place of developing
branch, not nodes
scale (with no leaves
top sph? or ?; green
with a tinge violet
most? mostly compound
young, starting ~~back~~
in flower near the
first sph.

Look exactly like
same type of sph
as the other. Very best
seen only on the road
(not yet collected
but in last one
few, 2, 3 sph on

end of branch, but
much longer, as a
or 20 cm long.

Leaf not rather thin
but strong -
0.6 - 0.8 cm and
more ~~the same~~
top = internodes

May 22

2445

Meristodry (ex. fls)

Meristodry, outside
Chiriqui - into Canal (ex
Barranca) 21 Km SW!

St. Olivero
Florencia, Guayaquil
Alt. 70 mm.

Only one ^{molt} ~~water~~ pond
in ~~flower~~ forest one
cabin (what) and
2 or 3 more dry -
In forest (partially
cut (not much)
with Pissate (but
not too much.
There will be another

Heritages & completely
joined end of long
narrow leafy flowers
but looks that it
and long ago part
of cone. Very dry
and some starting
to rot.

In some one, not
very abundant seen
about Heritages
thinner and of green
the one who collected.
Is it the same as
the one in flower?
Flowers specimen
rather thin color
a person, life.
Leaves smooth,
flowers. Dark color

± white.

Only Heritages 1/2.
and photo, and photo.
The Heritages from
the tree -
collected next day.
with 4 numbers of
in case.

Nov 22

2446

Alvimia gracilis

~~Alvimia gracilis~~

(This sp. with flowers
on granite!)

Mun. de Ilheus, road

Olivença - Vale Brasil,

ex Pucimbu (old name of town),

6 km SW of Olivença
city.

Alt. 75m

Photo: B. & W. 66 (1 to end)

Ektachrome: 67 (1 to end)

FAA: (view with in fl -

(1) : bud, all slender (3)

1: leaves

Bong - 1 -

3: 1 - 1

(6 total)

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)

Growing in water beside
road, Vented type of parent
no white head and
and P. way *Parasitica*
Parasitica

Abundant in this area
but ~~not~~ many plants
already dry and are
bluish and turning
brown, very thick
stem and leaves, clustered
Form dense forest in
trees and other plants
told *Parasitica* probably
up to 8 ft tall

Base of stem rather
thick, dense, but
very thin, dense
of *Parasitica*
Solid, very strong when

but thin - very smooth
surface. All ^{about} *Parasitica*
yellowish.

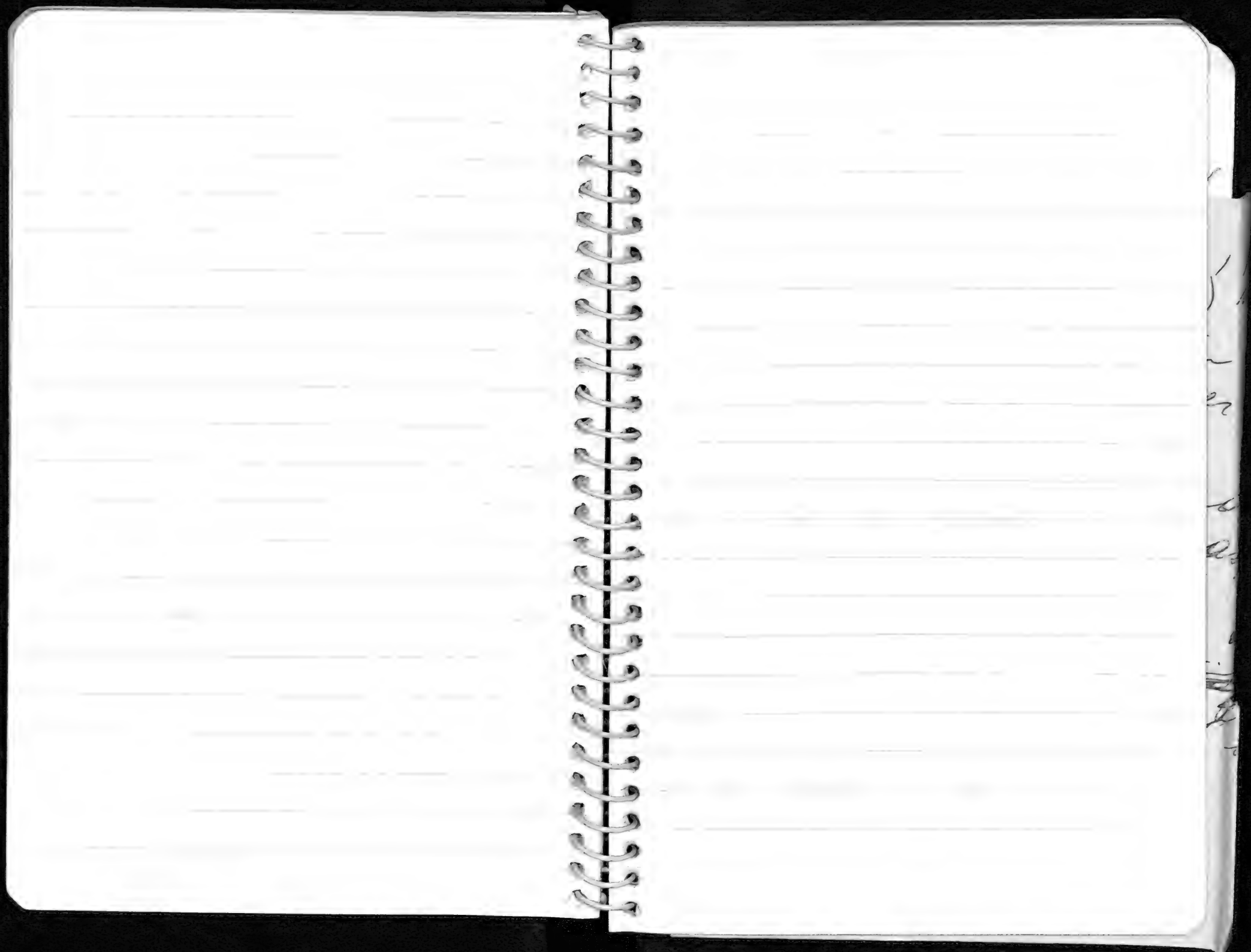
but smooth persistent
only, very late for flowers
in *Parasitica* similar
to the others up, but
smaller. Middle branch
L, erect.

Left at ~~with~~ end of
leaf compound and
not under green & leaf
becomes flower.

Left 2-3 or few *Parasitica*
Spk 7 - long green
leaf and *Parasitica*
Spk 10 - same 10, 20
27 or little more
but *Parasitica* *Parasitica*
young late.

Sphal. throat like
very delicate, thin
and 1-2 cm. back
upst. from 15 or 16 cm
to 20, 26, 27
Back upst. 1 cm. more
cloudy flared from
off of
with flaky, many
leaves, terminal one
of 2-3 fl.

The same place is
growing *A. radiata*
full of inflorescences,
mostly dying out.



May 23

2947

Meristotheca sp.

Near La Ilheus, a Thole-
de Oliveira - wild Brazil
(ex. Ruimbea), Km
SW? of Oliveira
Fazenda Espiranga -
Alt. 70 m

In forest of native
sandy soil, partially
cut, clear because
road construction
done but not
abandoned, seen
some as one
specimen found
at edge of trail

in flowers - (but not
sure). The bud in
flowers was only
very thin stems, young?
look like I collected
before.

Leaf & thick walls
very ~~soft~~ waxy.
light, & thick walls
mottled green, covered
in places with
white wax.

Nodes very thick
with prominent
black waxy, rather
thin, branches & nodes,
rather thick.

Leaf lanceolate,
~~and~~ rather waxy,
but not very large

but leaf with the
sheath very thick,
smooth and black
broad lanceolate
reflexed.

Leaf \pm 1 cm or little
more diameters.

In some areas
one old, very
thick, to plate
by several years.

Black striata the
cardinalis is almost
green with flowers
and most of leaves
In the next spot
still green and
flowering.

No photo. yesterday
all night

FDA 2 nals with
but old leaves

May 24

2448

Senecio nemorosus

Monte Ilheus, entrance
Olivença - Vila Brasil, 4
Pernambuco, 6 km SW of
Olivença

alt. 75m

FDA - 2. (inf, lvs)

Bog - 1

3.1 - 1

no photo

living plant -

Very abundant in
many places of forest

also at the edge of the
forest, growing in thick
white thickets of forest.
Flowering every where
may. many flowers
to be found at
edge of thickets or
forest.

FRA: 1 mol
Bog: " "
3:1 " "

Long plant collected.

May 24

2448

Pineapple leafy plant

Mun. de Ilheus, Estrada
Oliveira - 1162 km
de Rio Preto, 7 km SW
of Oliveira city

Alt. 750

Long plant collected.
FRA 2: inf. leaves
no Bog.
no photo

Abundant on roads
at the edge of forest

near the sea with
very sandy soil, grows
in sand.

Humid type of forest
lots of rain. Dominant
in forest Diarrhea palm
Many *Plinia* species and
palm fronds. Very moist,
open.

Plumage all very light
and most colors on left
main color & tone -
FAA

May 24

2450

Alouatta palliata
Alouatta palliata.

Mon. 24th May, 10.5 km
SW from Obispo
on road Obispo -
Vila Brasil, ex Raimundo

Alt. 75m.

FAA: 3 incl
1 very light dark
1 root & color
1 leaf.

Plot B & W: 100. 68.

(per 1 to 30)
Electrode: 69.11
to 18 21

growing in mata
to toracica, central type
of forest, very humid,
very rainy region,
with white sand
soil. *Passara Palm*
being one of the common
plants in the forest.
Very abundant and
dominant all over
the forest, climbing as
high as the trees and
hanging from them,
practically covering
completely the vegetation.
Foliage of a very light,
yellow shade of green,
delicate, very small
leaves. very beautiful.

clump leaves, with
very hard culms,
thin, 1 to 8 mm
diam. solid or
almost so, with a
very small lumen
in center, surface
smooth.
culm leaves persistent
at base of plant,
later push away by
developing branches
blade erect, as continua-
tion of sheath).
and central very do-
minant axis, very
often terete in long,
and thick branches
(to drink) and several,
to many very thin

branches on both
sides. Base of main
axis or of the whole
branch complement
extending downwards
and spreading in
the same fashion
as in the two other
sp. of *Alvimia*.

Base of main axis
segmented, being at
first by light colored
bracts & prophylls, but
very large).

Very beautiful gametophyte
arising from very high as
frases and being almost
completely like trees

(raining a lot when
collected it.)

May 25

2451

Mentado (in floor)
(with the paper-covered)

Mun. de Muc. 3.5 Km

S of Muc. on estate
Muc. - Santa Cruz -



May 26

2452

Atractodes ^{cristata} ~~the~~ ^{new sp!}
(in fls)

Men. elenagium, some (W)
leaves like a *li. tula*
this - ~~common~~ 4.5-5 Km
from the main road. Total for
this: 40 Km S of Mesa

Att. 75m

Atractodes in *mate*
attractodes *arctostaphylos*,
first type of *li*
found in the *li* *stupa*
Soil is almost white
sand.
In some area another

Atractodes, Shil, probably
same collected in
top of same in
Slovakia.

Beautiful Atractodes
but very late in flower,
pink, 2 ft. and
by -

under thin, white
with any of holes
fine pale smooth
many almost black
(Gagea?).

One more seen
up here, all
bracts fall early
one or two, a
few branches on
each side. & very
branched &

G. Atractodes
to Fager -

Leaves deep red-pink
deep sinuate. On
end of leaf on ph
some top of branches
end of plant, middle
everywhere, some
at base of young plants
almost base of rhizome
Nodes not prominent
look like the Atract.
I collected in Valinge
top, with leaves
white -

FRA: 3 flowers,
leaves, stem.
Photo: B. W. roll # 68
Jan 30 36 - all
Roll # 70 from 1 to 2
E. Atract. roll # 69. (20-36 -

leaves, growing
internode,
long point.

14

20-22

22-24

~~Stem~~ in front,
type (mate literature)
foil - abundant, in
chip and clumping over
it one spot only
buried with thick wood
fibre pith. Surface
with long, extended
new ^{at} same time
Foliage leaf with ~~new~~
Inflorescence at end

2451

~~Abundant~~ Abundant in forest, partially cut. of cortical
type (mate literature) with ~~grass~~ rather sandy
soil. Abundant, in big clumps. overar-
ching and climbing over vegetation. Flowering
at one spot only, and not very abundant.
bark with thick ^{in some parts of the plant} ~~wood~~ filled ~~with~~ with
~~thick~~ pith. Surface asperous, bark leaves
with long, extended teeth, the black ^{obsolete}
~~at~~ ^{at} same time ~~the~~ ^{a new} ~~grey~~ ^{grey} small one, on top leaves.
Foliage ^{new} ~~leaves~~ ^{folly} ~~with~~ ^{leaves} copper color oral steel
Inflorescence at end of ~~branch~~ ^{leaves} compound.

2451

~~11/11/11~~

~~2380 - 2 ok~~

~~2382 - 2 ok / 1 ok~~

~~2383 - 1 ok~~

~~2384 - 1 ok~~

~~2385 - 1 ok~~

2380^{OK} - no labels

2398^{OK} *Schmatus*, missing

2400^{OK} - no labels

2 bromelias 2392^{OK} *Guianensis* no label

2393^{OK} " "

2391 - *Vriesia*^{OK}

2401^{OK} - no label. (cardinalis)

2404^{OK} - no label (Pharus) seedlings -

2407 *Dioscorea* *pinn.* no label

2412^{OK} *Fe* *missip*

2414, 2415, 2416, 2417 *missip*
OK XOK

Agave, gonolobus
intermedia
trip plant

May 27

2453

Plinia tenuis
New genus

Munro St. Hill, outside Alameda
- Alameda, 13 km South
of Alameda City

Alt. 10 m.

Delicate, in flower
young at edge of
muddy stream in
a patch of forest.
This one is a ~~small~~
remnant of cut area
because of construction.
Pole green phase - only
the leaf is present
at side of some other

a little darker green
then on wing side of
the whole. Ashy pale
green.
but smooth, thin
and easily bent a
little hole in the white
leaf leaves prominent
like leaves in the middle
perhaps black roots
long on foot. Made
very long, some long
pale green. About

1.000 in. out ridge
but ad. small com-
ment quite high
above narrow ridge
with from dry, small
and base of water

are united.

Hand thin and
all round.

Made of foliage leaves
very narrow, thin.

It is all

but many small
more. Sharp in

some specimens of
long, and strong. I
believe, with slender

and many in

the end of the
how much

about 1000 ft.

At least 1000 ft. - 10
glowing with

no photo. no rhizome
no living plant

FHA: 3 vials:

bricks, leaves, culm
buds

f culm segments, and
1 jar of water -
bricks sample 1.

Material sent to New to
The Preserve

2378

2221

2395

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Lysefson B. de Oliveira

Km 22 da Rodovia Itaipu
Itabuna - CEPLAC-CEPEC

BOTA Nº 39

TALMON S. SANTOS
BOTA Nº 41

St. Peter, Fay. Marsden
on a trade Chinese -
Vito Brazil - (copies
for friends, and
make known).

Fay. Tpiranga - Admin.
Threats to. Roseus
ad in bottles of
rice.

MADE IN JAPAN